













Multi-Year Improvement Plan for All Schools (MYIPAS)

Capital Improvement Program Recommendations, Phase 1

September 29, 2020

Introductions





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CANNONDESIGN

EDUCATIONAL FACILITIES PLANNING, LLC

#2 Facility Management Firm (#1 in U.S.)

World Architecture 100, 2020

Top 5 US Education Firm

Building Design + Construction

Top 5 Education Interior Design Firm

Interior Design, Giants

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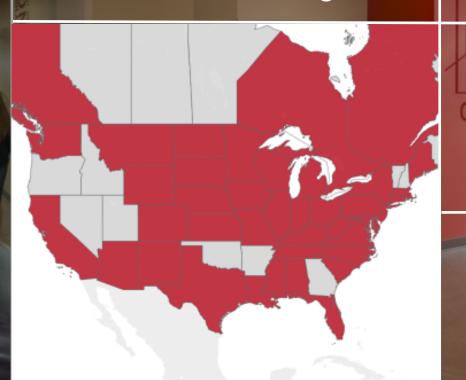
World Architecture 100

The Third Teacher

Authored by CannonDesign and an international team of architects and Designers

200+

Education Master Plans



1,340

Educational Projects

325+ million

SF of Education projects



35+ employees
Graduates, parents, and
residents of Maryland LEAs

20 years in Maryland

20+ Maryland
public schools
tended by Cannon Design

Attended by CannonDesign employee families

\$340M +

Projects in construction in state

of Maryland

IMH

SF of education projects in Maryland

	PROJECT	STOOHOS	COMPLETE	MARYLAND	CAPACITY PLANING	SCOPE PLAN	GIS	COMMUNITY
	Baltimore County Public Schools Multi-Year Improvement Plan (Case Study Project)	170 schools	Est. 2021	•	•	•	•	•
	Carroll County Public Schools* Redistricting and School Closure	43 schools	2018	•	•			•
	Garrett County Public School* Facility Recommendations	12 schools	2019	•	•			•
	Kent County Public Schools* Six-Year Facilities Strategic Plan	5 schools	2020	•	•			•
	Prince George's County Public Schools* Organizational Efficiency and Effectiveness Study	206 schools	2018	•	•		•	
THE REAL	Talbot County Public Schools* Educational Facilities Master Plan	9 schools	2020	•	•			
	Baltimore City Public Schools* Boundary Study	174 schools	2017	•	•		•	•
	Cherry Creek School District Master Plan (Case Study Project)	74 schools	2020		•	•		•
	Prairie Grove Consolidated School Campus Master Plan and (Case Study Project) Facility Condition Assessment	2 schools	2018		•	•		•
	Santa Monica-Malibu Unified School District Ed Specs & Facilities Needs Assessment (Case Study Project)	21 schools	2019		•	•		
A STATE OF THE PARTY OF THE PAR	Burbank School District Facility Condition Assessment, Life Safety Survey and Implementation Projects (Case Study Project)	8 schools	2016		•	•		•
	Chicago Public Schools High School Capacity/Utilization Study and Facility Conditions Assessment	631 schools	2014		•			

	PROJECT	SCHOOLS	COMPLETE	MARYLAND	CAPACITY PLANNING	SCOPE PLAN	GIS	COMMUNITY OUTREACH													
	Norfolk City Schools* Facility Master Plan	56 schools	2018		•		•	•													
	Savannah-Chatham County Public Schools System Groves K-12 Campus Master Plan	3 schools	2019			•		•													
A BLUEPRINT	New Orleans Public Schools* Hurricane Katrina Recovery Blueprint	128 schools	2008		•		•	•													
	Weld County School District Re-4 District Wide Facility Master Plan	12 schools	2015		•	•		•													
down.	Pasadena Unified School District District-Wide Facilities Master Plan	27 schools	2019		•	•		•													
	Hilliard City Schools* Subdivision Analysis and Facility Master Plan	22 schools	2020		•		•	•													
enct w. By	Culver City Unified School District Long Range Facility Master Plan and Educational Specifications	11 schools	2017		•	•		•													
######################################	•	20 schools	2018		•		•	•													
	Orange Unified School District Canyon High School, FMP and Modernization	42 schools	2016			•		•													
	Hawaii Department of Education* Facility Master Plan	261 schools	2019		•		•	•													
T ESTA	Oakland Unified School District* Facility Master Pland	90 schools	2017		•		•	•													
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Agenda

Overview

Benchmarking

Assessment Findings

Recommendations



Overview

MYIPAS Purpose:

- Develop Capital Improvement Program (CIP)
 with resources allocated equitably
- Maximize State funding & find no-cost solutions
- Assess facilities with <u>three pillars</u> of analysis:
 - 1. Educational Adequacy and Equity
 - 2. Facility Condition
 - 3. Capacity Utilization
- Define facility priorities with community/ stakeholder input

CannonDesign's role:

- Assessments and planning facilitation
- Impartial, unbiased recommendations



Progress



Critical milestones:

- Phase 1: Interim High School CIP recommendations, Fall 2020
- Phase 2: Multiyear Improvement Plan for All Schools, Spring 2021
- Final Report, Fall 2021

Schedule considerations:

- COVID
- Modified stakeholder input through virtual workshops
- Community survey 22,000 responses from all schools (including 2500 students)

Benchmarking

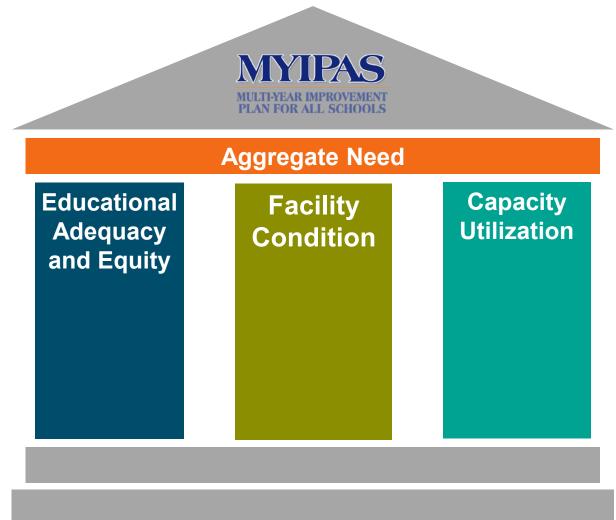


Benchmarking Overview

Aggregate Need Ranking - based on 'three pillars' of assessment:

- 1. Educational Adequacy & Equity
- 2. Facility Condition
- 3. Capacity Utilization

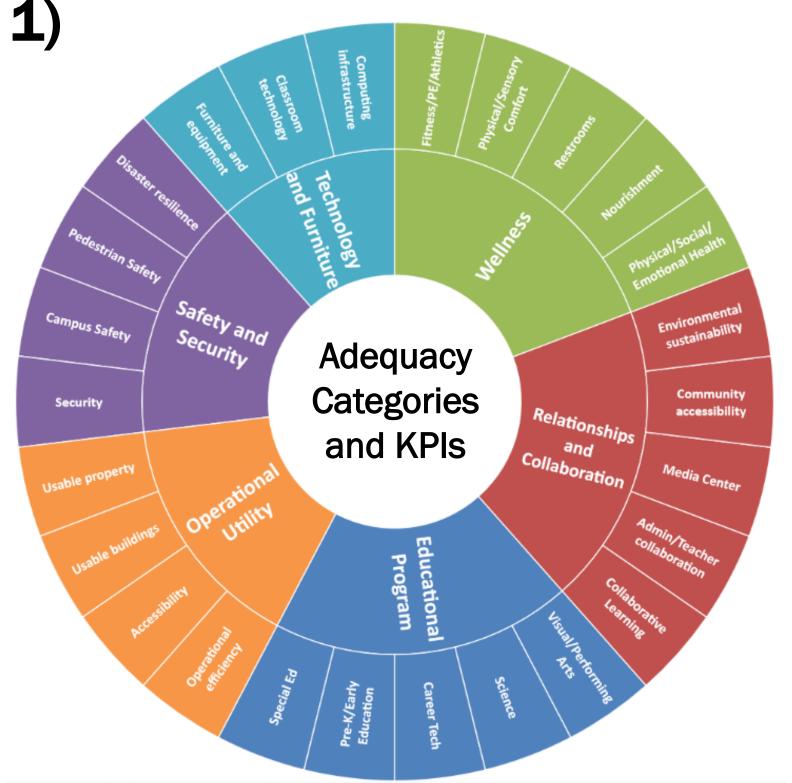
Greater need, higher priority



Benchmarking (continued 1)

1. Educational Adequacy & Equity

- Equity driven by objective measures against consistent standards
- Weighted rubric 6 Categories, 29 Key
 Performance Indicators (KPIs)
- Breakdown and weights developed with stakeholder focus group



Benchmarking (continued 2)

1. Educational Adequacy & Equity

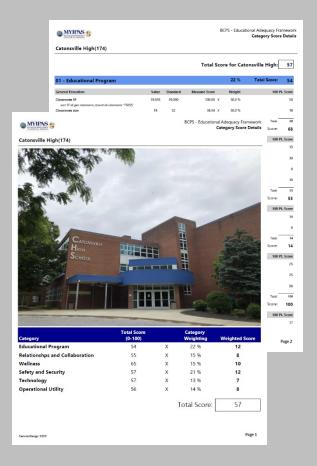
Scores and ranking (Lower score = higher need)

High School	Fdı	ıcational	Rank
		equacy &	
		ity Score	
	_4		
		24	
Lansdowne		34	1
Sparrows Point		44	2
Eastern Technical	0	47	3
Dulaney		51	4
Overlea		55	5
Towson		55	6
Loch Raven		56	7
Western Technical		56	8
Perry Hall		56	9
Catonsville		57	10
Owings Mills		58	11
Kenwood		58	12
Dundalk and Sollers Point		60	13
Franklin		61	14
Randallstown		61	15
Milford Mill Academy		62	16
Parkville		63	17
New Town		64	18
Woodlawn		64	19
Hereford		68	20
Chesapeake		68	21
Pikesville		69	22
Patapsco		71	23
G.W. Carver CAT		72	24

Benchmarking (continued 3)

1. Educational Adequacy & Equity

Backup data

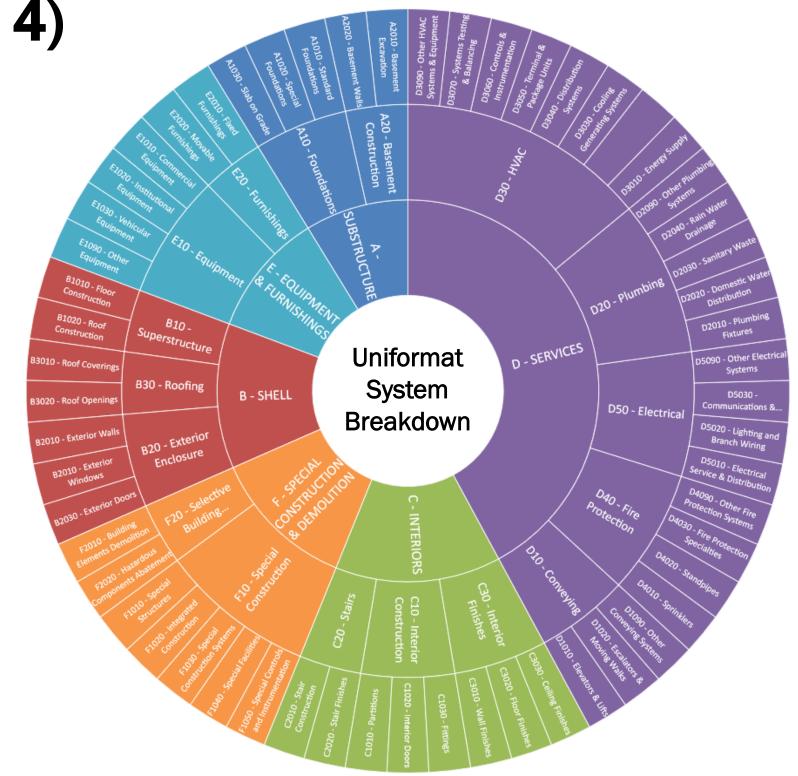


High School	Р	ucational rogram Support		ationships ollabation	W	Wellness		Safety & Security		Technology and Furnishings		Operational Utility		Educational Adequacy & Equipment	
Lansdowne		18		41		21		24	0	60		54		34	1
Sparrows Point		40		48		42		38		66		34		44	2
Eastern Technical		52	0	53		41		47		49		38		47	3
Dulaney		61		39		63		38		56		49		51	4
Overlea		58		39		70		43		55		67		55	5
Towson		59	\bigcirc	60		56		45		54		61		55	6
Loch Raven		53		48		73		55		48		58		56	7
Western Technical		59		31		44		69		78		51		56	8
Perry Hall		65		44		59		43		60		70		56	9
Catonsville		54		55		65		57		57		56		57	10
Owings Mills		57		36		77		59		56		61		58	11
Kenwood		51		36		69		59		72		64		58	12
Dundalk and Sollers Point		69		50		34		48		71		91		60	13
Franklin		60		42		74		69		68		51		61	14
Randallstown		65		47		76		52		64		64		61	15
Milford Mill Academy		63		51		65		63		60		72		62	16
Parkville		61		41		87		70		69		48		63	17
New Town		63		50		87		40		78		77		64	18
Woodlawn		38		69		89		60		76		67		64	19
Hereford		65		59		64		65		90		69		68	20
Chesapeake		64		65		77		69		81		57		68	21
Pikesville		55		57		90		70		80		70		69	22
Patapsco		61		50		80		79		77		86		71	23
G.W. Carver CAT		67		90		83		64		81		54		72	24

Benchmarking (continued 4)

2. Facility Condition

- Industry standard
 Facility Condition Index (FCI)
 assessment approach
- Uniformat system breakdown weighted by cost
- Validated by stakeholder focus group



Benchmarking (continued 5)

2. Facility Condition

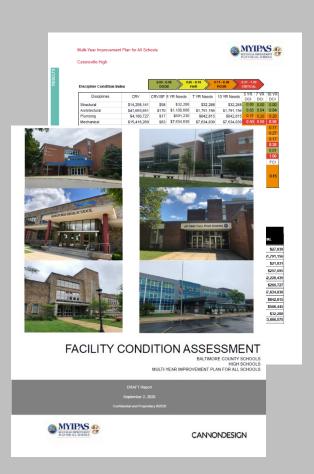
Scores and ranking (Lower score = higher need)

High School	Educ	ational	Rank	F	acility	Rank
	Aded	uacy &		Co	ndition	
	Equit	y Score			Score	
				F		
Lansdowne		34	1		75	1
		56	9		73 78	2
Perry Hall						
Towson		55	6		78	3
Owings Mills		58	11		78	4
Eastern Technical		47	3		80	5
Western Technical		56	8	0	81	6
Dulaney		51	4		84	7
Chesapeake		68	21		84	8
Loch Raven		56	7		85	9
Randallstown		61	15		86	10
Sparrows Point		44	2		87	11
Catonsville		57	10		87	12
Milford Mill Academy		62	16		87	13
New Town		64	18		88	14
Parkville		63	17		88	15
Hereford		68	20		89	16
Kenwood		58	12		91	17
Franklin		61	14		91	18
Pikesville		69	22		92	19
Woodlawn		64	19		93	20
Overlea		55	5		94	21
Patapsco		71	23		97	22
Dundalk and Sollers Point		60	13		100	23
G.W. Carver CAT		72	24		100	23

Benchmarking (continued 6)

2. Facility Condition

• Backup data

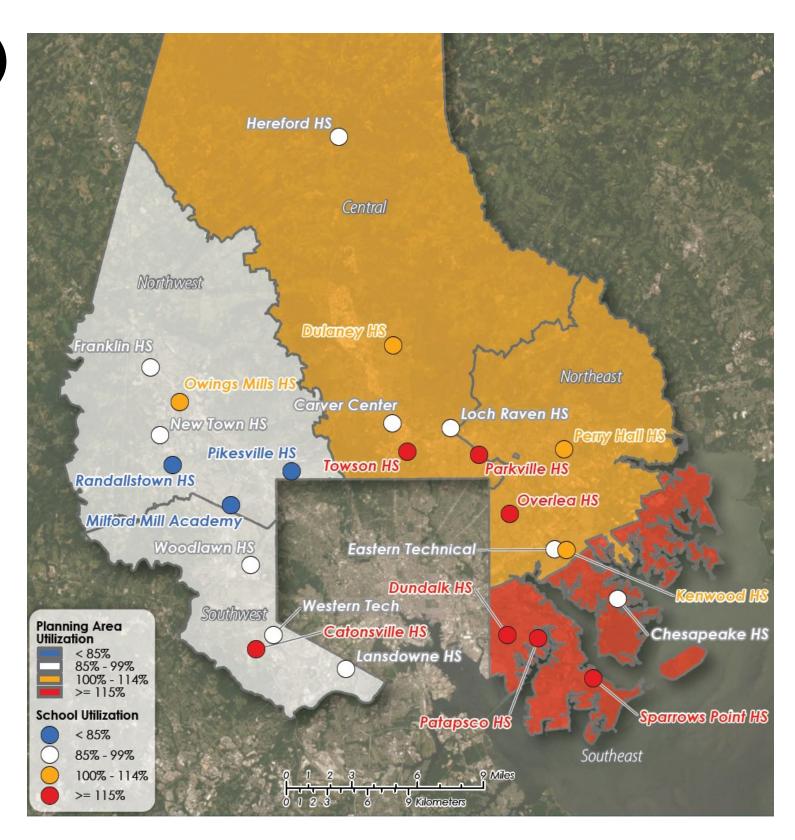


High School	Architectural	Civil	Communication	Electrical	Fire Protection	Fire Protection	Mechanical	Plumbing	Plumbing	Safety / Security	7-Year FCI	Facility Condition Score	Rank
Lansdowne												7 5	1
Perry Hall	0.19	0.03	0.15	0.29	0.12	0.62	0.62	0.26	0.03	0.35	0.22	78	2
Towson	0.14	0.02	0.16	0.47	0.10	0.73	0.73	0.18	0.02	0.41	0.22	78	3
Owings Mills	0.14	0.05	0.16	0.44	0.02	0.72	0.72	0.20	0.02	0.42	0.22	78	4
Eastern Technical	0.21	0.03	0.17	0.25	0.19	0.72	0.72	0.19	0.01	0.50	0.20	80	5
Western Technical	0.10	0.05	0.33	0.22	0.08	0.71	0.71	0.25	0.01	0.43	0.19	81	6
Dulaney	0.11	0.03	0.16	0.40	0.00	0.41	0.41	0.30	0.00	0.48	0.16	84	7
Chesapeake	0.03	0.07	0.14	0.45	0.07	0.52	0.52	0.21	0.04	0.40	0.16	84	8
Loch Raven	0.09	0.01	0.17	0.45	0.02	0.34	0.34	0.20	0.02	0.19	0.15	85	9
Randallstown	0.15	0.03	0.33	0.27	0.00	0.13	0.13	0.20	0.00	0.41	0.14	86	10
Sparrows Point	0.03	0.09	0.25	0.37	0.02	0.49	0.49	0.20	0.04	0.44	0.13	87	11
Catonsville	0.05	0.00	0.17	0.24	0.16	0.53	0.53	0.19	0.00	0.36	0.13	87	12
Milford Mill Academy	0.04	0.01	0.16	0.25	0.08	0.18	0.18	0.28	0.00	0.43	0.13	87	13
New Town	0.01	0.02	0.16	0.28	0.00	0.61	0.61	0.07	0.00	0.43	0.12	88	14
Parkville	0.07	0.00	0.16	0.19	0.01	0.40	0.40	0.05	0.00	0.41	0.12	88	15
Hereford	0.11	0.01	0.16	0.22	0.01	0.11	0.11	0.10	0.00	0.41	0.11	89	16
Kenwood	0.07	0.04	0.16	0.31	0.08	0.07	0.07	0.20	0.00	0.39	0.09	91	17
Franklin	0.02	0.04	0.17	0.28	0.12	0.28	0.28	0.18	0.00	0.44	0.09	91	18
Pikesville	0.01	0.02	0.24	0.20	0.05	0.32	0.32	0.05	0.00	0.41	0.08	92	19
Woodlawn	0.00	0.01	0.24	0.19	0.01	0.25	0.25	0.05	0.00	0.36	0.07	93	20
Overlea	0.03	0.02	0.16	0.32	0.01	0.01	0.01	0.07	0.00	0.41	0.06	94	21
Patapsco	0.03	0.03	0.16	0.01	0.00	0.02	0.02	0.04	0.02	0.30	0.03	97	22
Dundalk and Sollers Point												100	23
G.W. Carver CAT												100	23

Benchmarking (continued 7)

3. Capacity Utilization

- 7-Year Enrollment Projection (2026-27)
- State Rated Capacity
- ESOL Programs



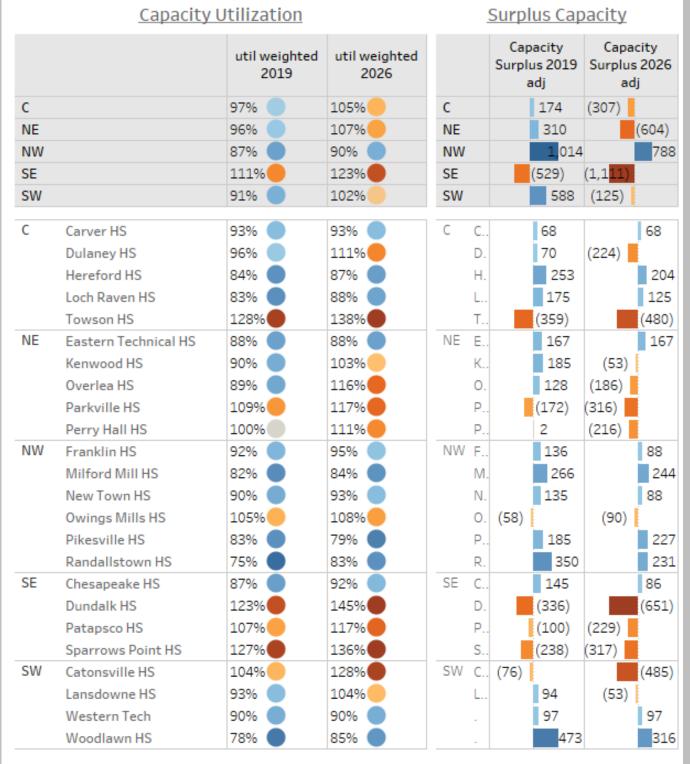
Benchmarking (continued 8)

3. Capacity Utilization

Backup data



www.cannondesign.com/bcps-dashboard



^{*2026} Enrollment Projections are adjusted to accomodate ESOL programs at home schools.

Benchmarking (continued 9)

3. Capacity Utilization

Scores and ranking

High School	Education	al Rank	Facility	Rank	Capacity	Rank
	Adequacy	&	Condition		Score	
	Equity Sco	re	Score			
					~\Q_1	
			11-11			
Dundalk and Sollers Point	60	13	100	23	5 5	1
Towson	55	6	78	3	6 2	2
Sparrows Point	44	2	87	11	6 4	3
Catonsville	57	10	87	12	<u>72</u>	4
Patapsco	71	23	97	22	83	5
Parkville	63	17	88	15	83	6
Overlea	55	5	94	21	84	7
Dulaney	51	4	84	7	89	8
Perry Hall	<u> </u>	9	78	2	89	9
Owings Mills	58	11	78	4	92	10
Lansdowne	34	1	75	1	96	11
Kenwood	58	12	91	17	97	12
Eastern Technical	47	3	80	5	100	13
Western Technical	56	8	81	6	100	13
Chesapeake	68	21	84	8	0 100	13
Loch Raven	56	7	85	9	100	13
Randallstown	61	15	86	10	0 100	13
Milford Mill Academy	62	16	87	13	100	13
New Town	64	18	88	14	100	13
Hereford	68	20	89	16	0 100	13
Franklin	61	14	91	18	100	13
Pikesville	69	22	92	19	100	13
Woodlawn	64	19	93	20	100	13
G.W. Carver CAT	72	24	100	23	100	13

Benchmarking (continued 10)

Aggregate Need Ranking

- Score based on three assessments
- Weighting based on 22,000+ responses to county-wide survey



Aggregate Need

Educational
Adequacy and
Equity

Stakeholder
Weight

Stakeholder Weight 35%

Facility Condition

Stakeholder Weight

Stakeholder

Weight 32%

Capacity Utilization

Stakeholder Weight

Stakeholder Weight

33%

Benchmarking (continued 11)

How will this be used?

- Criteria for facility options
- Renovation project scope
- Sequencing of CIP projects
- Greater need, higher priority

High School	Educational Adequacy & Equity Score		Condition Score	Rank	Score	Rank	Need Score	Rank
Sparrows Point	44	2	87	11	64	3	64	1
Towson	55	6	78	3	62	2	65	2
Lansdowne	34	1	75	1	96	11	68	3
Dundalk and Sollers Point	60	13	100	23	<u>55</u>	1	71	4
Catonsville	<u>57</u>	10	87	12	72	4	72	5
Dulaney	51	4	84	7	89	8	74	6
Perry Hall	<u> </u>	9	78	2	89	9	7 4	7
Eastern Technical	<u>47</u>	3	80	5	100	13	7 5	8
Owings Mills	<u> </u>	11	<u>78</u>	4	92	10	0 76	9
Overlea	<u> </u>	5	94	21	84	7		10
Parkville	63	17	88	15	83	6	<u>78</u>	11
Western Technical	<u> </u>	8	81	6	100	13	<u>79</u>	12
Loch Raven	<u> </u>	7	85	9	100	13	80	13
Kenwood	58	12	91	17	97	12	81	14
Randallstown	61	15	86	10	1 00	13	82	15
Milford Mill Academy	62	16	87	13	100	13	83	16
New Town	64	18	88	14	1 00	13	83	17
Patapsco	71	23	97	22	83	5	83	18
Franklin	61	14	91	18	100	13	83	19
Chesapeake	68	21	84	8	1 00	13	84	20
Woodlawn	6 4	19	93	20	1 00	13	85	21
Hereford	68	20	89	16	1 00	13	85	22
Pikesville	6 9	22	92	19	1 00	13	8 7	23
G.W. Carver CAT	72	24	1 00	23	1 00	13	90	24

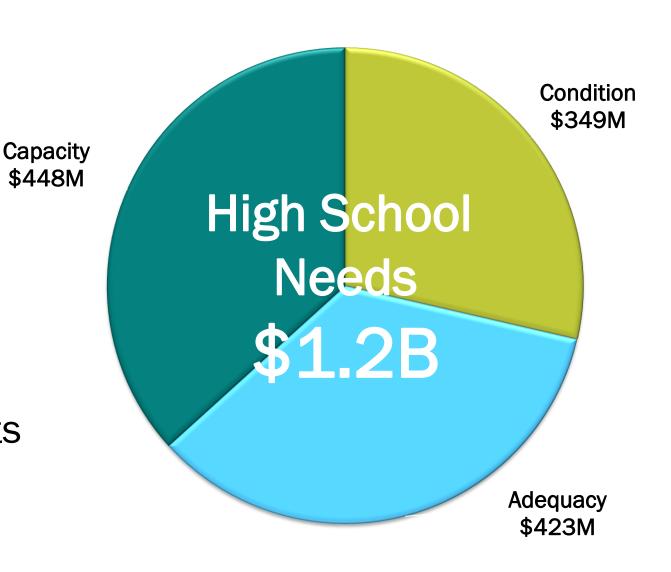
Assessment Findings



Assessment Findings Overview

Assessed High School 7-year capital needs total \$1.2 billion

- High Schools only
- 7-year forecast only
- Includes potential relief schools
- Does not include land procurement
- Does not include unfunded replacements

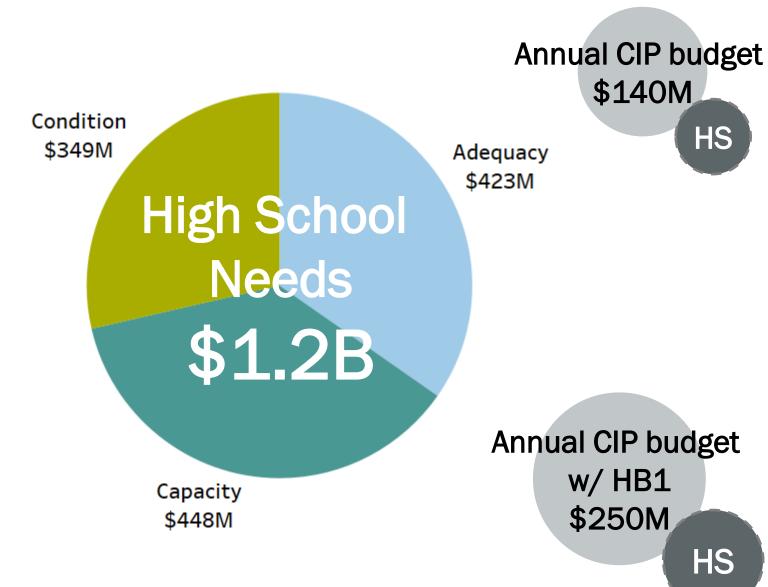


Assessment Findings: Budget and Needs

Needs Compared to Budget

- High Schools (1/3 of sq ft) \$1.2B
 Other facilities (2/3 of sq ft) TBD
- Current State and County funding
 - Estimated \$140M/year
 - (\$100M County, \$40M State)
 - Estimated 27 years
- Potential additional HB1 funding
 - Estimated additional \$110M/year
 - (\$80M County, \$30M State)
 - Estimated 15 years

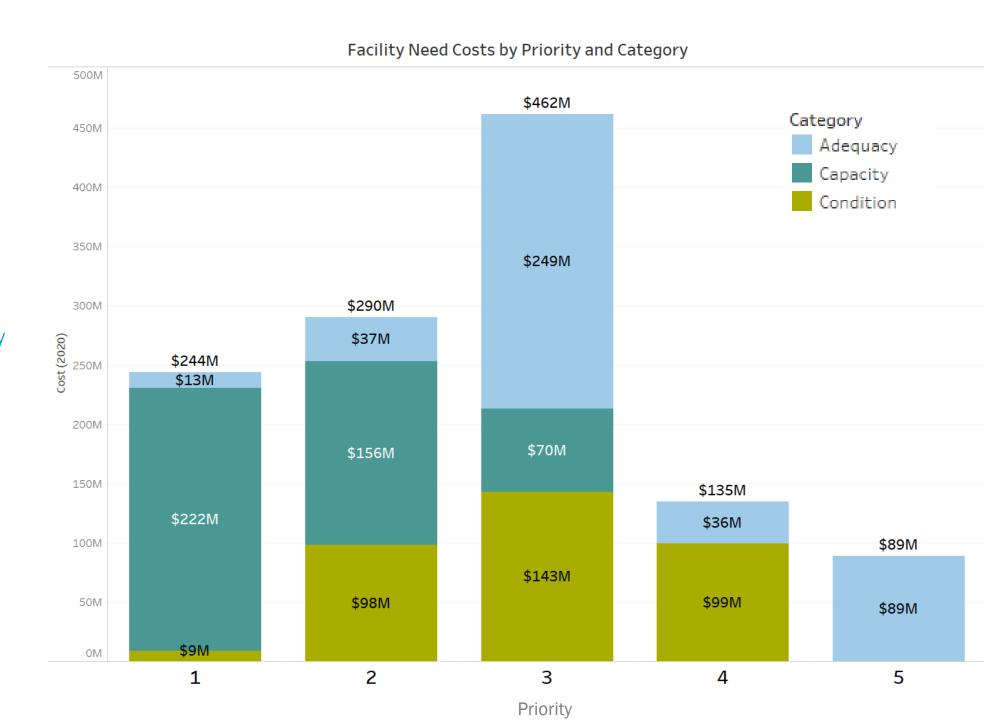
• Each \$100M+ replacement project delays all other high school projects by approximately 2-3 years.



Assessment Findings: Prioritization

Prioritization of needs

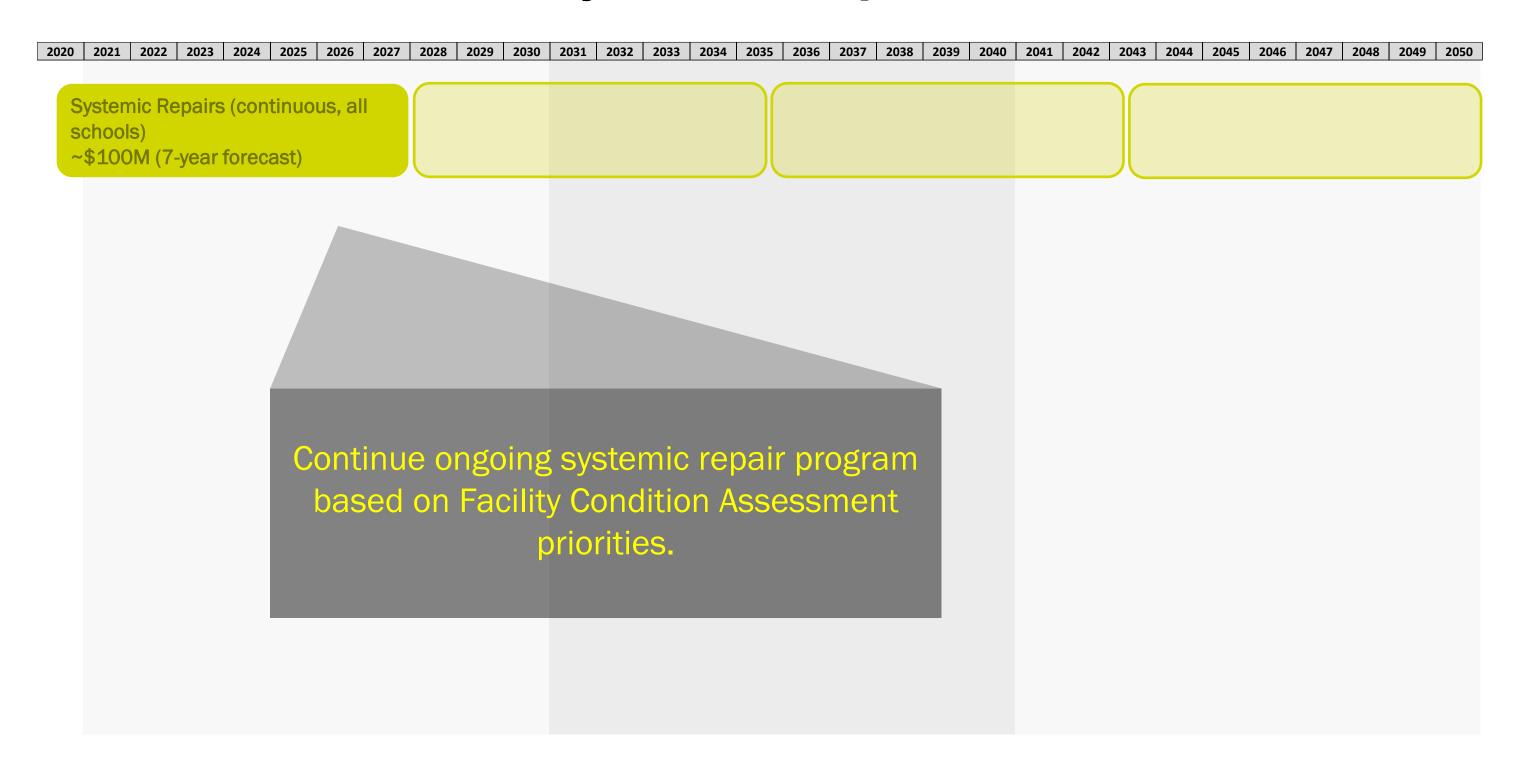
- Priority 1 Currently Critical
 - Health and life-safety, code compliance
 - Acute capacity shortage
- Priority 2 Potentially Critical
 - Rapid deterioration, risk to occupancy
 - Capacity shortage requiring due-diligence
 - Special Ed, Social/Emotional Health, Technology
- Priority 3 Necessary, Not Yet Critical
 - Systems exceeding useful lifespan
 - Rapid return on investment
 - Academic programs: STEM, CTE, PBL
- Priority 4 Recommended
 - Aesthetic improvements
 - Other programs: Arts, Athletics
 - Administration, Parking
- Priority 5 Additional Needs
 - Allowance for furniture refresh and other needs



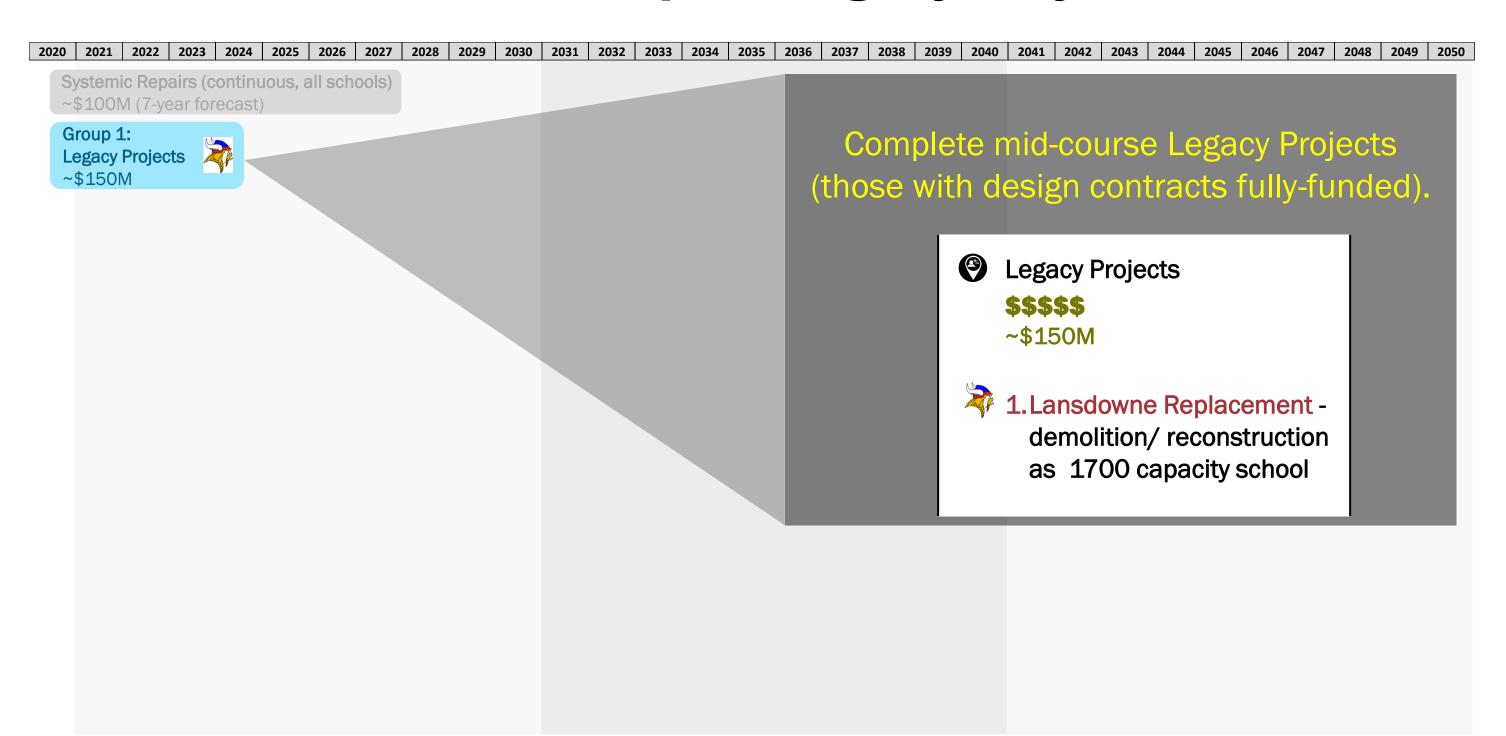
Recommendations



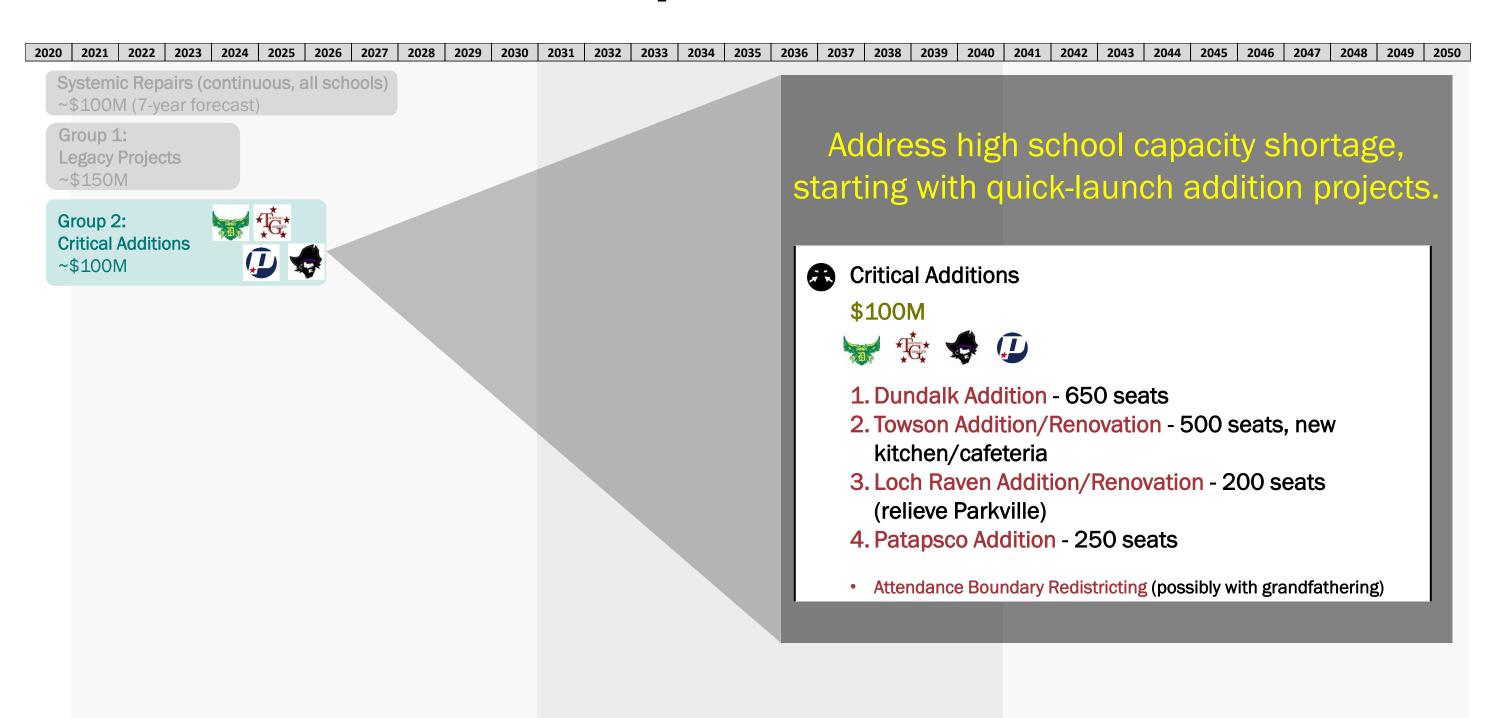
Recommendations: Systemic Repairs



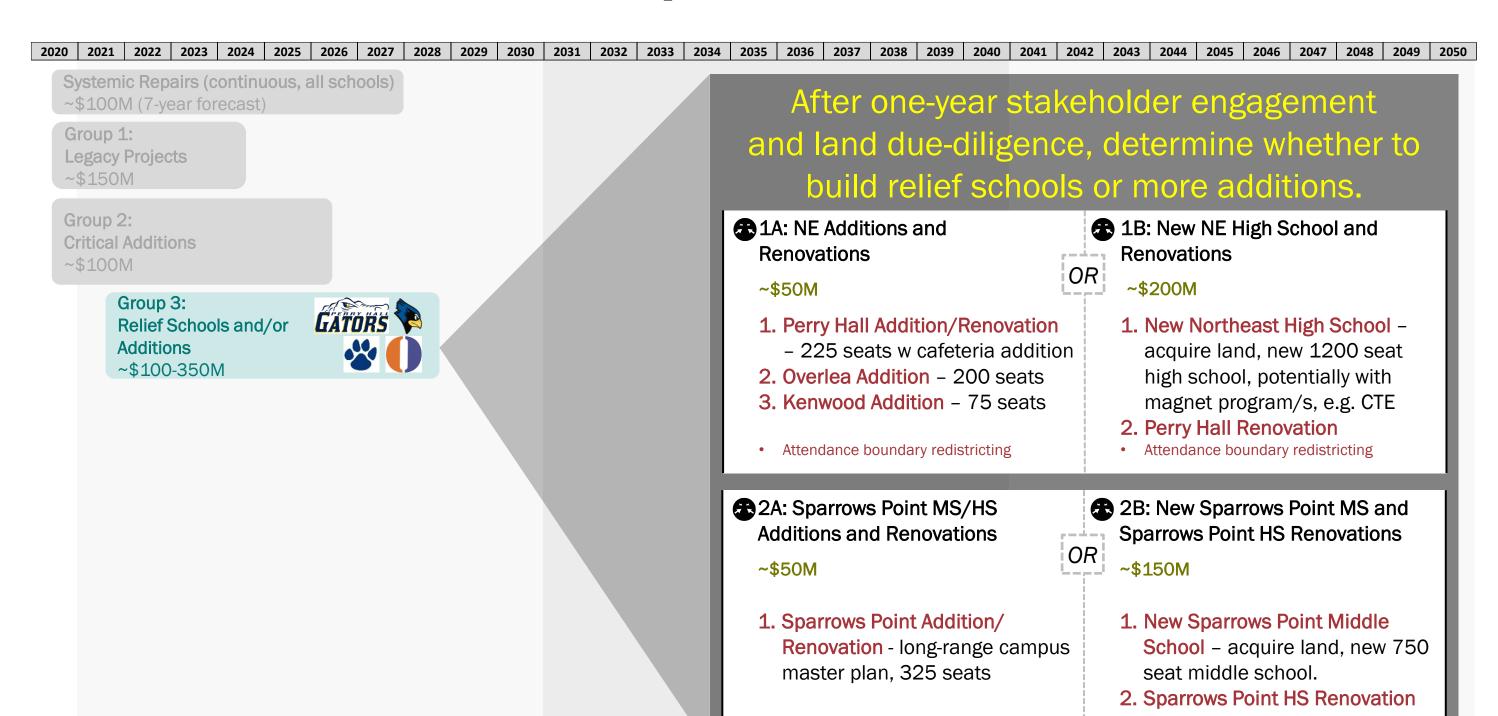
Recommendations: Group 1 - Legacy Projects



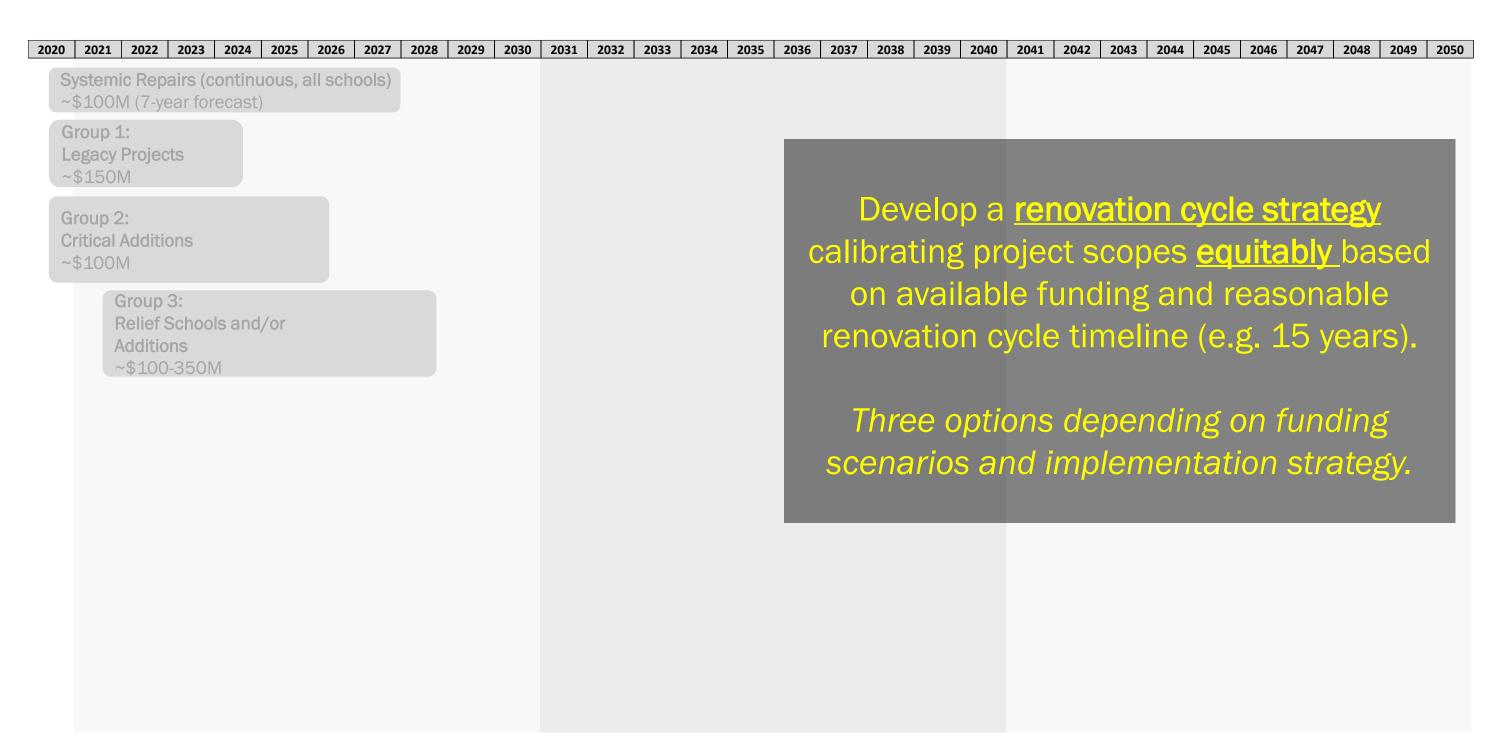
Recommendations: Group 2 - Critical Additions



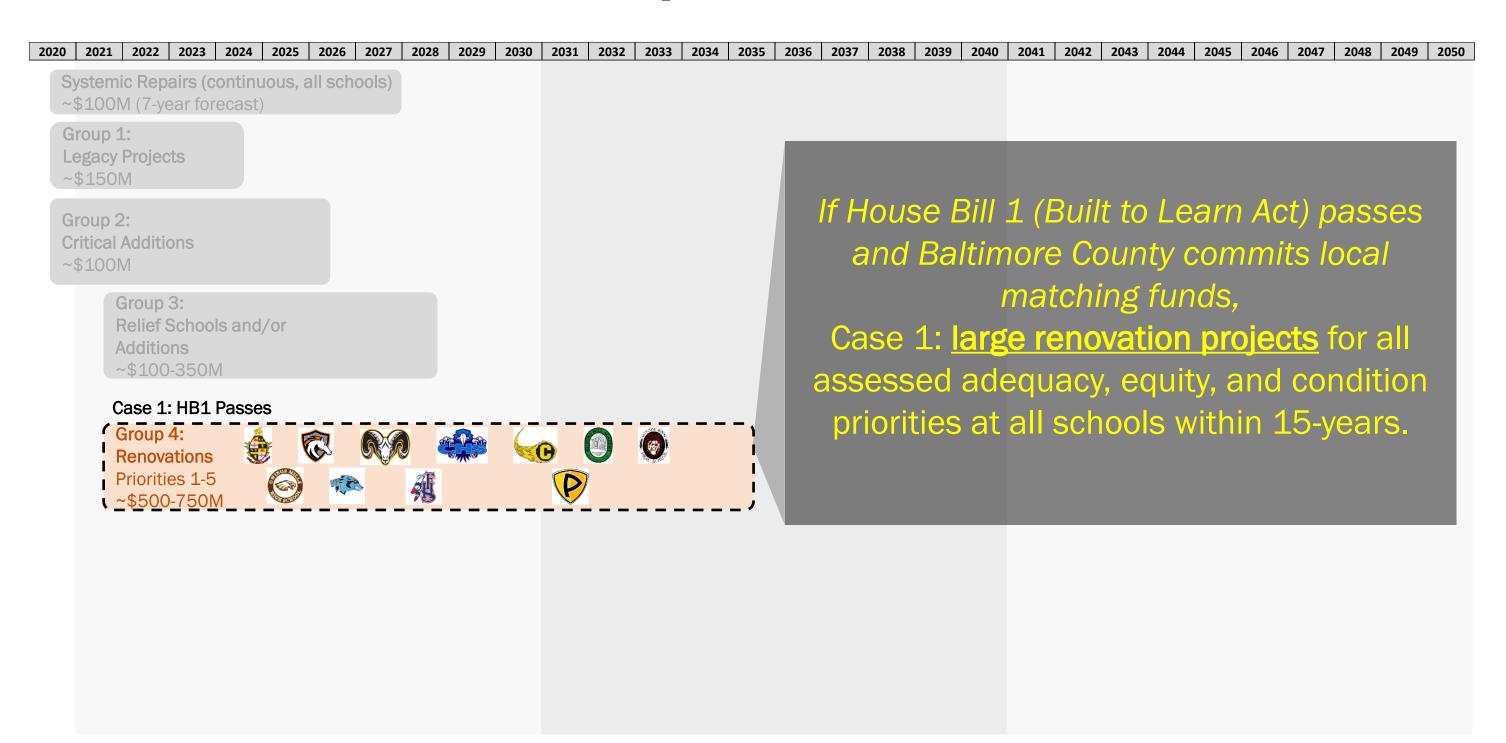
Recommendations: Group 3



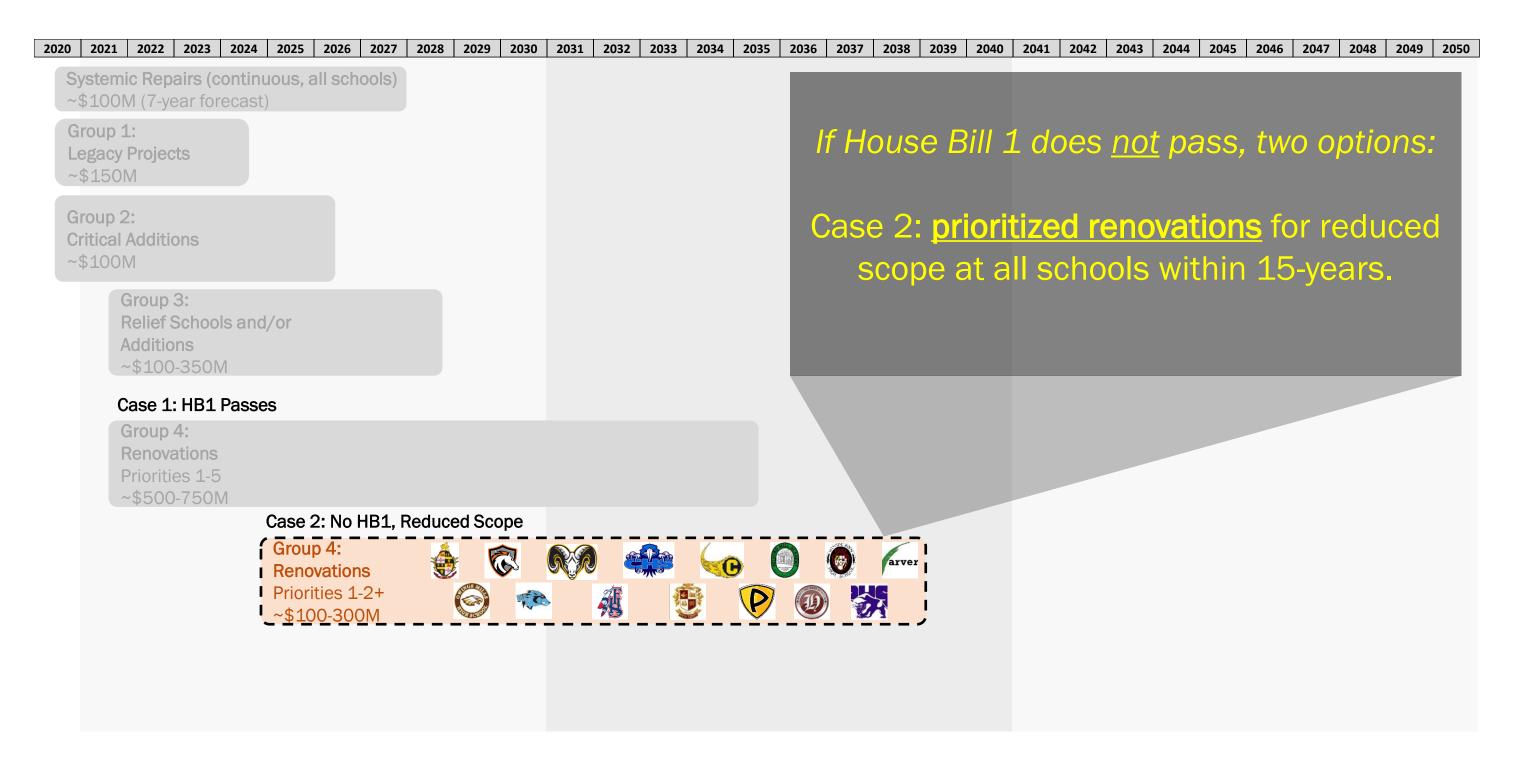
Recommendations: Group 3 (Continued)



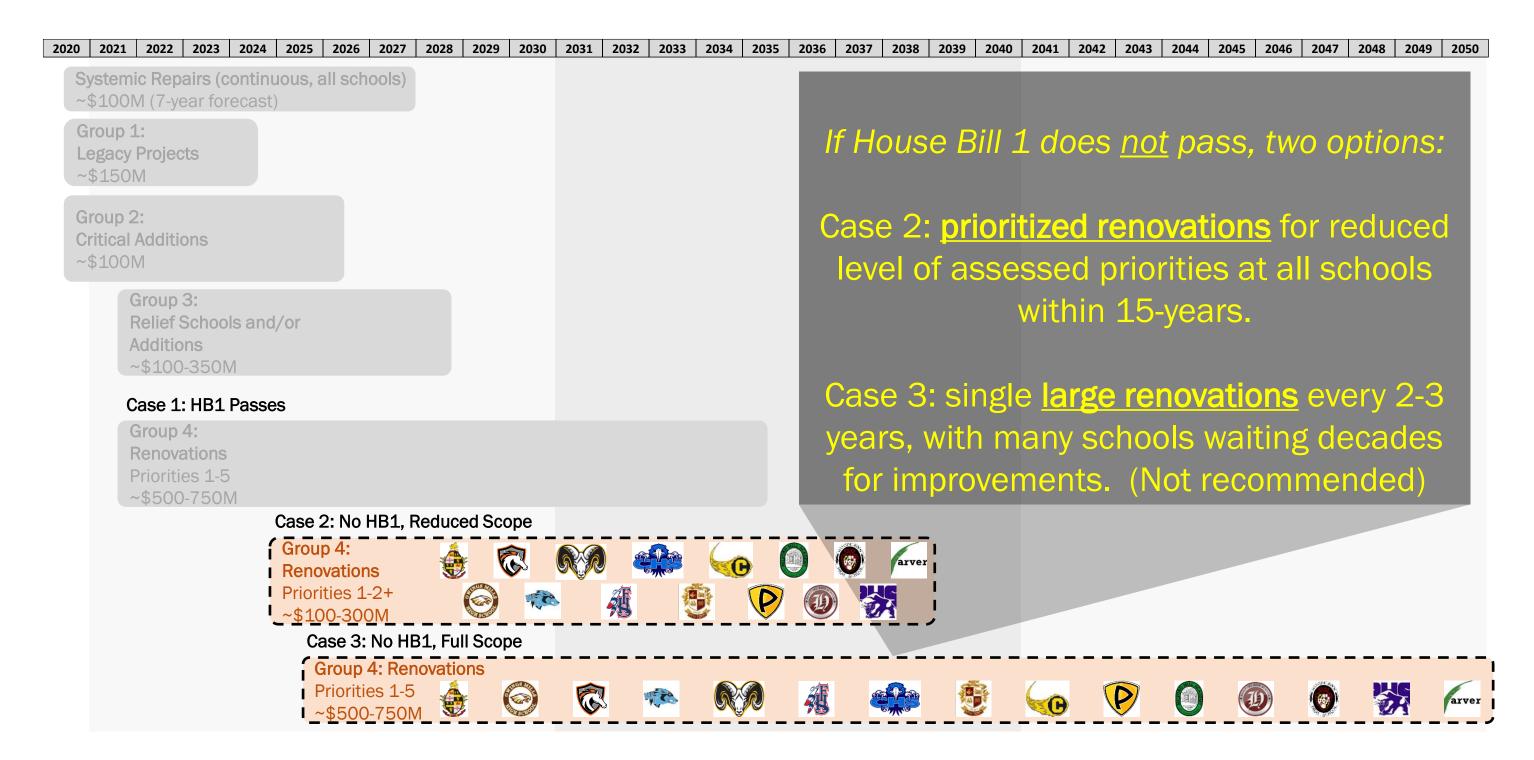
Recommendations: Group 4 – Case 1



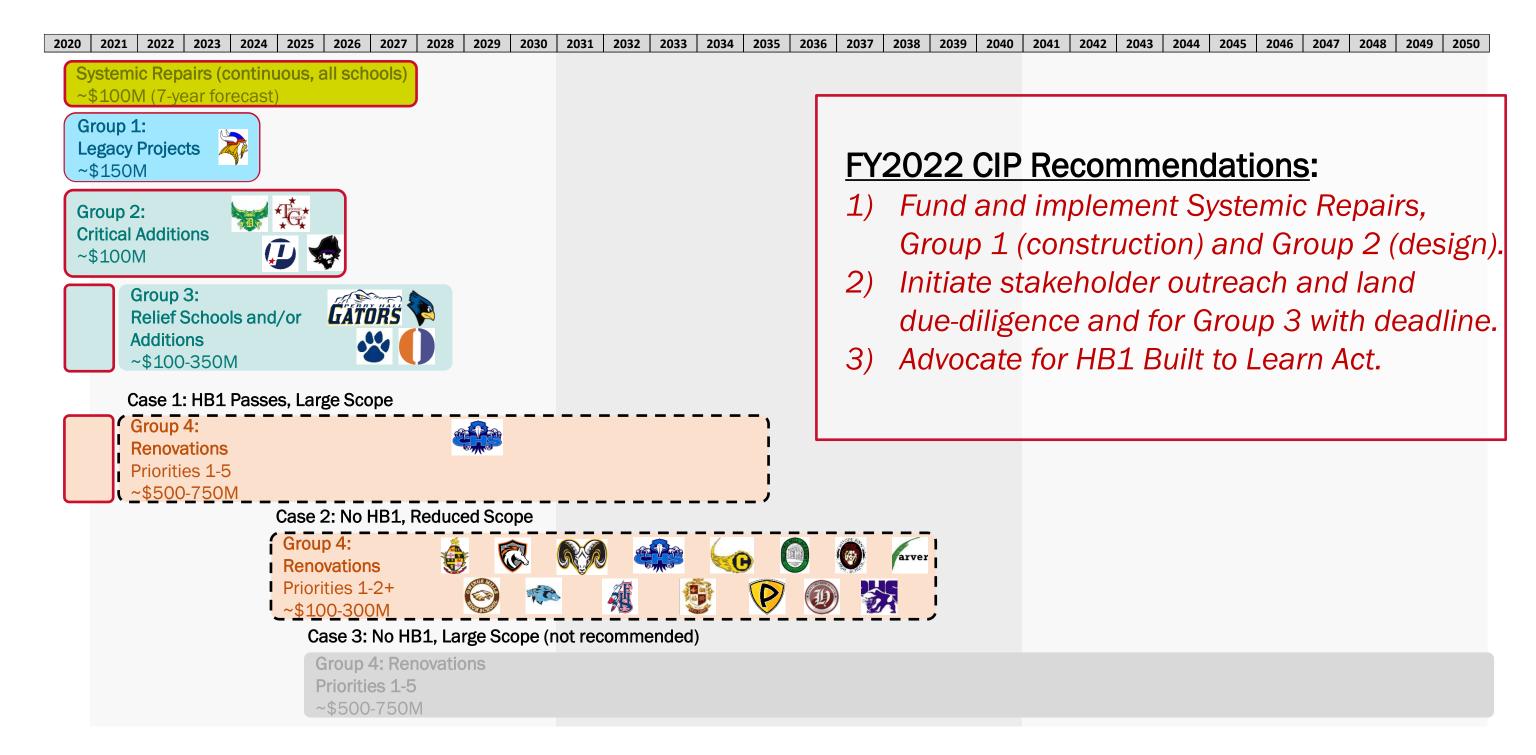
Recommendations: Group 4 - Case 2



Recommendations: Group 4 Summary



FY2022 CIP Recommendations



Questions?

